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**DECLARATION AND POWER OF  
ATTORNEY FOR PATENT APPLICATION  
(37 CFR 1.63)**☐ Declaration  
Submitted  
with Initial  
Filing

OR

☒ Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16(e))  
required)

Attorney Docket Number 42P17512

First Named Inventor Robert M. Ellis

**COMPLETE IF KNOWN**

Application Number 10/674,981

Filing Date September 29, 2003

Art Unit 2186

Examiner Name

**As a below named inventor, I hereby declare that:**

My residence, mailing address, and citizenship are as stated below, next to my name.

I believe I am the original and first inventor (if only one name listed below) or an original and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**Memory Buffer Device Integrating Refresh***(Title of the Invention)*

the specification of which

☐ is attached hereto.

OR

☒ was filed on (if applicable):or 09/29/2003

as United States Application Number

10/674,981

PCT International Application Number

and was amended on

(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment specifically referred to above.

I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application. I do not know and do not believe that the claimed invention was in public use or on sale in the United States of America more than one year prior to this application, nor do I know or believe that the invention has been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

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-1-

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, or inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected herewith.

Direct all correspondence to: ☒ Customer Number **08791** or ☐ Correspondence address below

Name <b>Blakey, Sokoloff, Taylor &amp; Zafman LLP</b>			
Address <b>12400 Wilshire Boulevard, 7th Floor</b>			
City <b>Los Angeles</b>	State <b>California</b>	Zip Code <b>90025</b>	
Country	Telephone <b>(408) 720-8300</b>	Fax <b>(408) 720-8383</b>	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


NAME OF SOLE OR FIRST INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: **Robert M. Ellis**  
*(First, Middle [if any], Family Name (or Surname), and Suffix [if any])*  
 Inventor's Signature *Robert M. Ellis* Date **1-26-04**  
 Residence **Hillsboro, Oregon USA** Citizenship **USA**  
*(City, State, Country)* *(Country)*  
 Mailing Address **4177 SE Hemlock**  
**Hillsboro, Oregon 97123 USA**

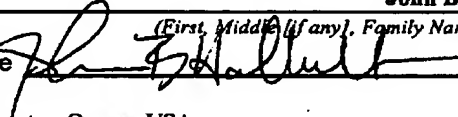
NAME OF SECOND INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Kuljit S. Bains  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Olympia, Washington USA Citizenship India  
(City, State, Country) (Country)  
Mailing Address 9146 52nd Lane NE  
Olympia, Washington 98516 USA

NAME OF THIRD INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Chris B. Freeman  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature  Date 1/26/04  
Residence Portland, Oregon USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 12590 SW Bowmont Street  
Portland, Oregon 97225 USA

NAME OF FOURTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: John B. Halbert  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature  Date 1-29-04  
Residence Beaverton, Oregon USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 15045 SW Emerald Court  
Beaverton, Oregon 97007 USA

NAME OF FIFTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Narendra S. Khandekar  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Folsom, California USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 1245 Humbug Creek Court  
Folsom, California 95630 USA

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**NAME OF SIXTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: Michael W. Williams  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Citrus Heights, California USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 8386 Zancanaro Court  
Citrus Heights, California 95610 USA

**NAME OF SEVENTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)  
Mailing Address \_\_\_\_\_  
\_\_\_\_\_

**NAME OF EIGHTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)  
Mailing Address \_\_\_\_\_  
\_\_\_\_\_

**NAME OF NINTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)  
Mailing Address \_\_\_\_\_  
\_\_\_\_\_

Docket No. 42P17512

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## Appendix A

I hereby appoint with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith, BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP, a firm including: William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. 42,261; Anthony H. Azure, Reg. No. 52,580; W. Thomas Babbitt, Reg. No. 39,591; Jordan M. Becker, Reg. No. 39,602; Todd M. Becker, Reg. No. 43,487; Michael A. Bernadico, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; R. Alan Burnett, Reg. No. 46,149; Gregory D. Caldwell, Reg. No. 39,926; Cory G. Claassen, Reg. No. 50,296; Thomas M. Coester, Reg. No. 39,637; Mimi D. Dao, Reg. No. 45,628; Stephen M. De Klerk, Reg. No. 46,503; Daniel M. De Vos, Reg. No. 37,813; Sanjeet Dutta, Reg. No. 48,145; Nathan P. Elder, Reg. No. P-55,150; Tarek N. Fahmi, Reg. No. 41,402; Thomas S. Ferrill, Reg. No. 42,532; Adam Furst, Reg. No. 51,710; Angelo J. Gaz, Reg. No. 45,907; Andre M. Gibbs, Reg. No. 47,593; James Y. Go, Reg. No. 40,621; Jason R. Graff, Reg. No. 54,134; Arlen M. Hartounian, Reg. No. 52,997; Jeffery Scott Heilesen, Reg. No. 46,765; James A. Henry, Reg. No. 41,064; Willmore F. Holbrow III, Reg. No. 41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Aslam A. Jaffery, Reg. No. 51,841; Walter T. Kim, Reg. No. 42,731; Eric T. King, Reg. No. 44,188; Steven Laut, Reg. No. 47,738; Suk S. Lee, Reg. No. 47,745; Gordon R. Lindeen III, Reg. No. 33,192; Jan Carol Little-Washington, Reg. No. 41,181; Joseph Lutz, Reg. No. 43,785; Michael J. Maille, Reg. No. 36,591; Andre L. Marais, Reg. No. 48,095; Paul A. Mendonsa, Reg. No. 42,879; Jonathan S. Miller, Reg. No. 48,534; Heather M. Mollieur, Reg. No. 50,432; Richard A. Nakashima, Reg. No. 42,023; Thinh V. Nguyen, Reg. No. 42,034; Robert B. O'Rourke, Reg. No. 46,972; Daniel E. Ovanezian, Reg. No. 41,236; Philip A. Pedigo, Reg. No. 52,107; Marina G. Portnova, Reg. No. 45,750; Joseph A. Pugh, Reg. No. 52,137; Jon C. Reali, Reg. No. 54,391; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Kevin G. Shao, Reg. No. 45,095; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Edwin H. Taylor, Reg. No. 25,129; Lisa Tom, Reg. No. 52,291; Kerry D. Tweet, Reg. No. 45,959; Mark C. Van Ness, Reg. No. 39,865; Thomas A. Van Zandt, Reg. No. 43,219; Mark R. Vatuone, Reg. No. 53,719; Lester J. Vincent, Reg. No. 31,480; John P. Ward, Reg. No. 40,216; Mark L. Watson, Reg. No. 48,322; Thomas C. Webster, Reg. No. 46,154; Chui-Klu Teresa Wong, Reg. No. 48,042; and Norman Zafman, Reg. No. 26,250, my patent attorneys, and Chze Koon Chua, 53,831; Brent Vecchia, Reg. No. 48,011 and Lehua Wang, Reg. No. 48,023, my patent agents, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800; and James R. Thein, Reg. No. 31,710, my patent attorney, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith. I also appoint Alan K. Aldous, Reg. No. 31,905; Rob D. Anderson, Reg. No. 33,826; Jay P. Beale, Reg. No. 50,901; Shireen I. Bacon, Reg. No. 40,494; R. Edward Brake, Reg. No. 37,784; Ben Burge, Reg. No. 42,372; Robert H. Chang, Reg. No. 48,765; George Chen, Reg. No. 50,807; Glen B. Chol, Reg. No. 43,548; Kenneth Cool, Reg. No. 40,570; Ted A. Crawford, Reg. No. 50,610; Robert A. Diehl, Reg. No. 40,992; Jeffrey S. Draeger, Reg. No. 41,000; Cynthia Thomas Faatz, Reg. No. 39,973; Christopher Gagne, Reg. No. 36,142; Sharmini N. Green, Reg. No. 41,410; Robert Greenberg, Reg. No. 44,133; Bradley Greenwald, Reg. No. 34,341; Jeffrey B. Huter, Reg. No. 41,086; Seth Z. Kalson, Reg. No. 40,670; Peter Lam, Reg. No. 44,855; Issac Lin, Reg. No. 50,672; David C. Lundmark, Reg. No. 42,815; Anthony Martinez, Reg. No. 44,223; Larry Mennemeier, Reg. No. 51,003; Molly A. McCall, Reg. No. 46,126; Paul Nagy, Reg. No. 37,896; Michael J. Nesheiwat, Reg. No. 47,819; Dennis A. Nicholls, Reg. No. 42,036; Kathy J. Ortiz, Reg. No. 54,351; Lanny Parker, Reg. No. 44,281; Michael D. Plimier, Reg. No. 43,004; Michael Proksch, Reg. No. 43,021; Kevin A. Reif, Reg. No. 38,381; Crystal D. Sayles, Reg. No. 44,318; Russell C. Scott, Reg. No. 43,103; Justin B. Scout, Reg. No. 54,431; Kenneth M. Seddon, Reg. No. 43,105; Mark Seeley, Reg. No. 32,299; Ami P. Shah, Reg. No. 42,143; David Simon, Reg. No. 32,756; Steven P. Skabrat, Reg. No. 38,279; Howard A. Skalist, Reg. No. 36,008; Paul E. Steiner, Reg. No. 41,326; Joni D. Stutman-Horn, Reg. No. 42,173; David Tran, Reg. No. 50,804; John F. Travis, Reg. No. 43,203; Robert G. Winkle, Reg. No. 37,474; Sharon Wong, Reg. No. 37,760; Steven D. Yates, Reg. No. 42,242; Calvin E. Wells, Reg. No. 43,256; Michael Willardson, Reg. No. 50,858 and Charles K. Young, Reg. No. 39,435; my patent attorneys and my patent agents, of INTEL CORPORATION; with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Docket No. 42P17512

Title 37, Code of Federal Regulations, Section 1.56  
Duty to Disclose Information Material to Patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information, which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
  - (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
- (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
  - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
- (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.



DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION (37 CFR 1.63)	
<input type="checkbox"/> Declaration Submitted with Initial Filing	<input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16(e)) required)
OR	
Attorney Docket Number 42P17512	
First Named Inventor Robert M. Ellis	
COMPLETE IF KNOWN	
Application Number 10/674,981	
Filing Date September 29, 2003	
Art Unit 2186	
Examiner Name	

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below, next to my name.

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(Title of the Invention)

the specification of which

☐ is attached hereto.

OR

☒ was filed on (if applicable):

or 09/29/2003 as United States Application Number 10/674,981

and was amended on \_\_\_\_\_ PCT International Application Number \_\_\_\_\_  
(if applicable)

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Docket No. 42P17512

-1-



I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, or inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
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			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected herewith.

Direct all correspondence to: ☒ Customer Number **08791** or ☐ Correspondence address below

Name <b>Blakely, Sokoloff, Taylor &amp; Zafman LLP</b>			
Address <b>12400 Wilshire Boulevard, 7th Floor</b>			
City <b>Los Angeles</b>	State <b>California</b>	Zip Code <b>90025</b>	
Country	Telephone <b>(408) 720-8300</b>	Fax <b>(408) 720-8383</b>	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: **Robert M. Ellis**  
*(First, Middle [if any], Family Name (or Surname), and Suffix [if any])*

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

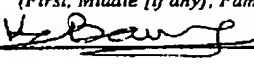
Residence **Hillsboro, Oregon USA** Citizenship **USA**  
*(City, State, Country) (Country)*

Mailing Address **4177 SE Hemlock**  
**Hillsboro, Oregon 97123 USA**

Docket No. 42PI7512

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**NAME OF SECOND INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: Kuljit S. Bains  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature  Date 2/9/2004  
Residence Olympia, Washington USA Citizenship India  
(City, State, Country) (Country)  
Mailing Address 9146 52nd Lane NE  
Olympia, Washington 98516 USA

**NAME OF THIRD INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: Chris B. Freeman  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Portland, Oregon USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 12590 SW Bowmont Street  
Portland, Oregon 97225 USA

**NAME OF FOURTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: John B. Halbert  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Beaverton, Oregon USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 15045 SW Emerald Court  
Beaverton, Oregon 97007 USA

**NAME OF FIFTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: Narendra S. Khandekar  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Folsom, California USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 1245 Humbug Creek Court  
Folsom, California 95630 USA

Docket No. 42P17512

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**NAME OF SIXTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: Michael W. Williams  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Citrus Heights, California USA Citizenship USA  
(City, State, Country) (Country)

Mailing Address 8386 Zancanaro Court  
Citrus Heights, California 95610 USA

**NAME OF SEVENTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)

Mailing Address \_\_\_\_\_  
\_\_\_\_\_

**NAME OF EIGHTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)

Mailing Address \_\_\_\_\_  
\_\_\_\_\_

**NAME OF NINTH INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)

Mailing Address \_\_\_\_\_  
\_\_\_\_\_

Docket No. 42P17512

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### Appendix A

I hereby appoint with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith, BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP, a firm including: William E. Alford, Reg. No. 37,784; Farzad E. Amini, Reg. No. 42,261; Anthony H. Azure, Reg. No. 52,580; W. Thomas Babbitt, Reg. No. 39,591; Jordan M. Becker, Reg. No. 39,602; Todd M. Becker, Reg. No. 43,487; Michael A. Bernadecou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; R. Alan Burnett, Reg. No. 46,149; Gregory D. Caldwell, Reg. No. 39,926; Cory G. Claassen, Reg. No. 50,296; Thomas M. Coester, Reg. No. 39,637; Mimi D. Dao, Reg. No. 45,828; Stephen M. De Klerk, Reg. No. 46,503; Daniel M. De Vos, Reg. No. 37,813; Sanjeet Dutta, Reg. No. 46,145; Nathan P. Elder, Reg. No. P-55,150; Tarek N. Fahmi, Reg. No. 41,402; Thomas S. Ferrell, Reg. No. 42,532; Adam Furst, Reg. No. 51,710; Angelo J. Gaz, Reg. No. 45,907; Andre M. Gibbs, Reg. No. 47,593; James Y. Go, Reg. No. 40,821; Jason R. Graff, Reg. No. 54,134; Arien M. Hartounian, Reg. No. 52,997; Jeffery Scott Heileson, Reg. No. 46,765; James A. Henry, Reg. No. 41,084; Wilmore F. Holbrow III, Reg. No. 41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Aslam A. Jaffery, Reg. No. 51,841; Walter T. Kim, Reg. No. 42,731; Eric T. King, Reg. No. 44,188; Steven Laut, Reg. No. 47,736; Suk S. Lee, Reg. No. 47,745; Gordon R. Lindeen III, Reg. No. 33,192; Jan Carol Little-Washington, Reg. No. 41,181; Joseph Lutz, Reg. No. 43,765; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, Reg. No. 48,095; Paul A. Mendonsa, Reg. No. 42,879; Jonathan S. Miller, Reg. No. 48,534; Heather M. Molleur, Reg. No. 50,432; Richard A. Nakashima, Reg. No. 42,023; Thinh V. Nguyen, Reg. No. 42,034; Robert B. O'Rourke, Reg. No. 46,972; Daniel E. Ovanezian, Reg. No. 41,236; Philip A. Padigo, Reg. No. 52,107; Marina G. Portnova, Reg. 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No. 31,710, my patent attorney, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith. I also appoint Alan K. Aldous, Reg. No. 31,905; Rob D. Anderson, Reg. No. 33,826; Jay P. Beale, Reg. No. 50,901; Shireen I. Bacon, Reg. No. 40,494; R. Edward Brake, Reg. No. 37,784; Ben Burge, Reg. No. 42,372; Robert H. Chang, Reg. No. 48,766; George Chen, Reg. No. 50,807; Glen B. Choi, Reg. No. 43,546; Kenneth Cool, Reg. No. 40,570; Ted A. Crawford, Reg. No. 50,610; Robert A. Dishl, Reg. No. 40,992; Jeffrey S. Draeger, Reg. No. 41,000; Cynthia Thomas Faatz, Reg. No. 39,973; Christopher Gagne, Reg. No. 38,142; Sharmine N. Green, Reg. No. 41,410; Robert Greenberg, Reg. No. 44,133; Bradley Greenwald, Reg. No. 34,341; Jeffrey B. Huter, Reg. No. 41,088; Seth Z. Kalson, Reg. No. 40,670; Peter Lam, Reg. No. 44,855; Issac Lin, Reg. No. 50,672; David C. Lundmark, Reg. No. 42,815; Anthony Martinez, Reg. No. 44,223; Larry Mennemeier, Reg. No. 51,003; Molly A. McCall, Reg. No. 46,126; Paul Nagy, Reg. No. 37,896; Michael J. Neshelwat, Reg. No. 47,819; Dennis A. Nicholls, Reg. No. 42,036; Kathy J. Ortiz, Reg. No. 54,351; Lanny Parker, Reg. No. 44,281; Michael D. Pilmler, Reg. No. 43,004; Michael Proksch, Reg. No. 43,021; Kevin A. Reif, Reg. No. 36,381; Crystal D. Sayles, Reg. No. 44,318; Russell C. Scott, Reg. No. 43,103; Justin B. Scout, Reg. No. 54,431; Kenneth M. Seddon, Reg. No. 43,105; Mark Seeley, Reg. No. 32,299; Arni P. Shah, Reg. No. 42,143; David Simon, Reg. No. 32,756; Steven P. Skabrat, Reg. No. 36,279; Howard A. Skaist, Reg. No. 36,008; Paul E. Steiner, Reg. No. 41,328; Joni D. Stutman-Horn, Reg. No. 42,173; David Tran, Reg. No. 50,804; John F. Travis, Reg. No. 43,203; Robert G. Winkle, Reg. No. 37,474; Sharon Wong, Reg. No. 37,760; Steven D. Yates, Reg. No. 42,242; Calvin E. Wells, Reg. No. 43,256; Michael Willardson, Reg. No. 50,856 and Charles K. Young, Reg. No. 39,435; my patent attorneys and my patent agents, of INTEL CORPORATION; with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Docket No. 42P17512

Title 37, Code of Federal Regulations, Section 1.56  
Duty to Disclose Information Material to Patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information, which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
  - (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
  - (2) It refutes, or is inconsistent with, a position the applicant takes in:
    - (i) Opposing an argument of unpatentability relied on by the Office, or
    - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
- (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
  - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
- (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.



<b>DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION (37 CFR 1.63)</b>		Attorney Docket Number	42P17512
		First Named Inventor	Robert M. Ellis
<input type="checkbox"/> Declaration Submitted with Initial Filing OR <input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16(e)) required)		<b>COMPLETE IF KNOWN</b>	
		Application Number	10/674,981
		Filing Date	September 29, 2003
		Art Unit	2186
		Examiner Name	

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below, next to my name.

I believe I am the original and first inventor (if only one name listed below) or an original and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Memory Buffer Device Integrating Refresh

(Title of the Invention)

the specification of which

☐ is attached hereto.

OR

☒ was filed on (if applicable):

or 09/29/2003 as United States Application Number 10/674,981

and was amended on \_\_\_\_\_ PCT International Application Number \_\_\_\_\_  
(If applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment specifically referred to above.

I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application. I do not know and do not believe that the claimed invention was in public use or on sale in the United States of America more than one year prior to this application, nor do I know or believe that the invention has been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Docket No. 42P17512

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I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, or inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

**Prior Foreign Application(s):**

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected herewith.

Direct all correspondence to: ☒ Customer Number **08791** or ☐ Correspondence address below

Name <b>Blakely, Sokoloff, Taylor &amp; Zafman LLP</b>			
Address <b>12400 Wilshire Boulevard, 7th Floor</b>			
City <b>Los Angeles</b>	State <b>California</b>	Zip Code <b>90025</b>	
Country	Telephone <b>(408) 720-8300</b>	Fax <b>(408) 720-8383</b>	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR:** ☐ A petition has been filed for this undersigned inventor

Full Name: **Robert M. Ellis**  
*(First, Middle [if any], Family Name (or Surname), and Suffix [if any])*

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence **Hillsboro, Oregon USA** Citizenship **USA**  
*(City, State, Country) (Country)*

Mailing Address **4177 SE Hemlock**  
**Hillsboro, Oregon 97123 USA**

Docket No. 42P17512

-2-

NAME OF SECOND INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Kuljit S. Bains  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Olympia, Washington USA Citizenship India  
(City, State, Country) (Country)

Mailing Address 9146 52nd Lane NE  
Olympia, Washington 98516 USA

NAME OF THIRD INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Chris B. Freeman  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Portland, Oregon USA Citizenship USA  
(City, State, Country) (Country)

Mailing Address 12590 SW Bowmont Street  
Portland, Oregon 97225 USA

NAME OF FOURTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: John B. Halbert  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Beaverton, Oregon USA Citizenship USA  
(City, State, Country) (Country)

Mailing Address 15045 SW Emerald Court  
Beaverton, Oregon 97007 USA

NAME OF FIFTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Narendra S. Khandekar  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Folsom, California USA Citizenship USA  
(City, State, Country) (Country)

Mailing Address 1245 Humbug Creek Court  
Folsom, California 95630 USA

Docket No. 42P17512

-3-



NAME OF SIXTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Michael W. Williams  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature Michael W. Williams Date 2-12-04  
Residence Citrus Heights, California USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 8386 Zancanaro Court  
Citrus Heights, California 95610 USA

NAME OF SEVENTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)  
Mailing Address \_\_\_\_\_  
\_\_\_\_\_

NAME OF EIGHTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)  
Mailing Address \_\_\_\_\_  
\_\_\_\_\_

NAME OF NINTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: \_\_\_\_\_  
(First, Middle [if any], Family Name (or Surname), and Suffix [if any])  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State, Country) (Country)  
Mailing Address \_\_\_\_\_  
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Docket No. 42P17512

-4-



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Docket No. 42P17512

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- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

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- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

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- (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
  - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
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(5)

NAME OF SECOND INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Kuljit S. Bains  
(First, Middle (if any), Family Name (or Surname), and Suffix (if any))  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Olympia, Washington USA Citizenship India  
(City, State, Country) (Country)  
Mailing Address 9146 52nd Lane NE  
Olympia, Washington 98516 USA

NAME OF THIRD INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Chris B. Freeman  
(First, Middle (if any), Family Name (or Surname), and Suffix (if any))  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Portland, Oregon USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 12590 SW Bowmont Street  
Portland, Oregon 97225 USA

NAME OF FOURTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: John B. Halbert  
(First, Middle (if any), Family Name (or Surname), and Suffix (if any))  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Beaverton, Oregon USA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 15045 SW Emerald Court  
Beaverton, Oregon 97007 USA

NAME OF FIFTH INVENTOR: ☐ A petition has been filed for this undersigned inventor

Full Name: Narendra S. Khandekar  
(First, Middle (if any), Family Name (or Surname), and Suffix (if any))  
Inventor's Signature N Khandekar Date 03/15/04  
Residence Folsom, California USA BANGALORE, INDIA Citizenship USA  
(City, State, Country) (Country)  
Mailing Address 1245 Humboldt Creek Court 3RD MAIN, 1B CROSS, DOMLUR 2ND ST  
Folsom, California 95630 USA BANGALORE, INDIA

Docket No. 42P17512

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